

REMARKS

In response to the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures dated November 23, 2004 (copy enclosed), Applicants have amended the specification to include the required sequence identifiers and substitute Sequence Listing. A computer readable form (CRF) copy of the enclosed substitute Sequence Listing and a Statement As Required Under 37 C.F.R. § 1.825(a) and (b) And Statement As Required Under 37 C.F.R. § 1.821(g) are also submitted herewith. No new matter is introduced by this amendment.

Should the Examiner have any questions or comments regarding this matter, a telephone call to the undersigned Applicants' representative is earnestly solicited.

Please date stamp and return the enclosed postcard evidencing receipt of these materials.

Respectfully submitted,

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Mark B. Wilson

Reg. No. 37,259

Agent for Applicants

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Date: December 23, 2004

APPENDIX A

SEQUENCE LISTING



<110> SARCABAL, PATRICIA
CROUX, CHRISTIAN
SOUCAILLE, PHILIPPE

<120> METHOD FOR PREPARING 1,3-PROPANEDIOL BY A RECOMBINANT
MICRO-ORGANISM IN THE ABSENCE OF COENZYME B12 OR ONE OF
ITS PRECURSORS

<130> CHEP:004US

<140> 10/043,639

<141> 2002-01-09

<150> PCT/FR00/01981

<151> 2000-07-07

<150> FR 99/08939

<151> 1999-07-09

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<170> PatentIn Ver. 2.1

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Pro Tyr Ile Asp Leu Ala Met Ile Asp Ile Lys Ser Met Asn Asp Glu
180 185 190

Ile His Arg Lys Phe Thr Gly Val Ser Asn Glu Ile Ile Leu Gln Asn
195 200 205

Ile Lys Leu Ser Asp Glu Leu Ala Lys Glu Ile Ile Ile Arg Ile Pro
210 215 220

Val Ile Glu Gly Phe Asn Ala Asp Leu Gln Ser Ile Gly Ala Ile Ala
225 230 235 240

Gln Phe Ser Lys Ser Leu Thr Asn Leu Lys Arg Ile Asp Leu Leu Pro
245 250 255

Tyr His Asn Tyr Gly Glu Asn Lys Tyr Gln Ala Ile Gly Arg Glu Tyr
260 265 270

Ser Leu Lys Glu Leu Lys Ser Pro Ser Lys Asp Lys Met Glu Arg Leu
275 280 285

Lys Ala Leu Val Glu Ile Met Gly Ile Pro Cys Thr Ile Gly Ala Glu
290 295 300

<210> 8

<211> 385

<212> PRT

<213> Clostridium butyricum

<400> 8

Met Arg Met Tyr Asp Tyr Leu Val Pro Ser Val Asn Phe Met Gly Ala
1 5 10 15

Asn Ser Val Ser Val Val Gly Glu Arg Cys Lys Ile Leu Gly Gly Lys
20 25 30

Lys Ala Leu Ile Val Thr Asp Lys Phe Leu Lys Asp Met Glu Gly Gly
35 40 45

Ala Val Glu Leu Thr Val Lys Tyr Leu Lys Glu Ala Gly Leu Asp Val
50 55 60

Val Tyr Tyr Asp Gly Val Glu Pro Asn Pro Lys Asp Val Asn Val Ile
65 70 75 80

Glu Gly Leu Lys Ile Phe Lys Glu Glu Asn Cys Asp Met Ile Val Thr
85 90 95

Val Gly Gly Gly Ser Ser His Asp Cys Gly Lys Gly Ile Gly Ile Ala
100 105 110

Ala Thr His Glu Gly Asp Leu Tyr Asp Tyr Ala Gly Ile Glu Thr Leu
115 120 125

Val Asn Pro Leu Pro Pro Ile Val Ala Val Asn Thr Thr Ala Gly Thr
130 135 140

Ala Ser Glu Leu Thr Arg His Cys Val Leu Thr Asn Thr Lys Lys Lys

145	150	155	160
Ile Lys Phe Val	Ile Val Ser Trp Arg	Asn Leu Pro Leu Val	Ser Ile
165	170	175	
Asn Asp Pro Met Leu Met Val Lys Lys Pro Ala Gly Leu Thr Ala Ala			
180	185	190	
Thr Gly Met Asp Ala Leu Thr His Ala Ile Glu Ala Tyr Val Ser Lys			
195	200	205	
Asp Ala Asn Pro Val Thr Asp Ala Ser Ala Ile Gln Ala Ile Lys Leu			
210	215	220	
Ile Ser Gln Asn Leu Arg Gln Ala Val Ala Leu Gly Glu Asn Leu Glu			
225	230	235	240
Ala Arg Glu Asn Met Ala Tyr Ala Ser Leu Leu Ala Gly Met Ala Phe			
245	250	255	
Asn Asn Ala Asn Leu Gly Tyr Val His Ala Met Ala His Gln Leu Gly			
260	265	270	
Gly Leu Tyr Asp Met Ala His Gly Val Ala Asn Ala Met Leu Leu Pro			
275	280	285	
His Val Glu Arg Tyr Asn Met Leu Ser Asn Pro Lys Lys Phe Ala Asp			
290	295	300	
Ile Ala Glu Phe Met Gly Glu Asn Ile Ser Gly Leu Ser Val Met Glu			
305	310	315	320
Ala Ala Glu Lys Ala Ile Asn Ala Met Phe Arg Leu Ser Glu Asp Val			
325	330	335	
Gly Ile Pro Lys Ser Leu Lys Glu Met Gly Val Lys Gln Glu Asp Phe			
340	345	350	
Glu His Met Ala Glu Leu Ala Leu Leu Asp Gly Asn Ala Phe Ser Asn			
355	360	365	
Pro Arg Lys Gly Asn Ala Lys Asp Ile Ile Asn Ile Phe Lys Ala Ala			
370	375	380	
Tyr			
385			

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<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

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<210> 10
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<212> DNA
<213> Artificial Sequence

<220>
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Primer

<400> 10
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40

<210> 11
<211> 34
<212> DNA
<213> Artificial Sequence

<400> 11
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34

<210> 12
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

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<210> 13
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
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Primer

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31

<210> 14
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

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ttagatcttt taaatagtat taattaataa gcagcc

36